

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-25 (Cancel).

26. (New) An isolated nucleic acid comprising a nucleotide sequence encoding the amino acid sequence: Ala-Gln-Glu-Pro-Val-Lys-Gly-Pro-Val-Ser-Thr-Lys-Pro-Gly-Ser-Cys-Pro-Ile-Ile-Leu-Ile-Arg-Cys-Ala-Met-Leu-Asn-Pro-Pro-Asn-Arg-Cys-Leu-Lys-Asp-Thr-Asp-Cys-Pro-Gly-Ile-Lys-Lys-Cys-Cys-Glu-Gly-Ser-Cys-Gly-Met-Ala-Cys-Phe-Val-Pro- Gln or fragment of said amino acid sequence that possesses inhibitory activity against human leukocyte elastase.

27. (New) The isolated nucleic acid according to claim 26 wherein said nucleotide sequence encodes said amino acid sequence.

28. (New) The isolated nucleic acid according to claim 26 wherein said nucleic acid comprises the nucleotide sequence: GCTCAAGAACCAGTTAAAGGTCCTGTGTCTACT AAGCCAGGTTCTTGTCCTATTATCTTGATTGCGCTATGTTAAACCCACCTAACCGT TGTTTGAAGGACACTGATTGTCCAGGTATCAAAAAGTGCTGTGAAGGTTCCCTGCGGTATG GCTTGTTTCGTTCCACAA or fragment thereof that encodes a polypeptide that possesses inhibitory activity against human leukocyte elastase.

29. (New) A replicable expression vehicle comprising a nucleic acid comprising a nucleotide sequence encoding the amino acid sequence: Ala-Gln-Glu-Pro-Val-Lys-Gly-Pro-Val-Ser-Thr-Lys-Pro-Gly-Ser-Cys-Pro-Ile-Ile-Leu-Ile-Arg-Cys-Ala-Met-Leu-Asn-Pro-Pro-Asn-Arg-Cys-Leu-Lys-Asp-Thr-Asp-Cys-Pro-Gly-Ile-Lys-Lys-Cys-Cys-Glu-Gly-Ser-Cys-Gly-Met-Ala-Cys-Phe-Val-Pro- Gln or fragment of said amino acid sequence that possesses inhibitory activity against human leukocyte elastase, and a vector.

30. (New) A transformed host cell comprising said replicable expression vehicle according to claim 29.

31. (New) A method of producing the replicable expression vehicle according to claim 29 comprising introducing said nucleic acid into said vector at an insertion site so that a replicable expression vehicle is obtained that directs synthesis of said amino acid sequence, or fragment thereof, encoded by said nucleotide sequence.

32. (New) A method of producing a polypeptide comprising culturing said host cell according to claim 30 under conditions such that said amino acid sequence, or fragment thereof, is produced.

33. (New) A method of producing a transformed host cell comprising introducing said replicable expression vehicle according to claim 29 into a host cell.

34. (New) An isolated nucleic acid comprising a sequence complementary to a nucleotide sequence encoding the amino acid sequence: Ala-Gln-Glu-Pro-Val-Lys-Gly-Pro-Val-Ser-Thr-Lys-Pro-Gly-Ser-Cys-Pro-Ile-Ile-Leu-Ile-Arg-Cys-Ala-Met-Leu-Asn-Pro-Pro-Asn-Arg-Cys-Leu-Lys-Asp-Thr-Asp-Cys-Pro-Gly-Ile-Lys-Lys-Cys-Cys-Glu-Gly-Ser-Cys-Gly-Met-Ala-Cys-Phe-Val-Pro- Gln or fragment of said amino acid sequence that possesses inhibitory activity against leukocyte elastase.

35. (New) An isolated nucleic acid comprising a sequence complementary to the nucleotide sequence: GCTCAAGAACCAGTTAAAGGTCCTGTGTCTACT
AAGCCAGGTTCTTGTCTATTATCTTGATTCGTTGCGCTATGTTAAACCCACCTAACCGT
TGTTTGAAGGACACTGATTGTCCAGGTATCAAAAAGTGCTGTGAAGGTTTCCTGCGGTATG
GCTTGTTTCGTTCCACAA or fragment thereof that encodes a polypeptide that possesses inhibitory activity against human leucocyte elastase.

36. (New) An isolated nucleic acid comprising the nucleotide sequence
GCG CAA GAG CCA GTC AAA GGT CCA GTC TCC ACT AAG CCT GGC TCC TGC
CCC ATT ATC TTG ATC CGG TGC GCC ATG TTG AAT CCC CCT AAC CGC TGC
TTG AAA GAT ACT GAC TGC CCA GGA ATZ AAG AAP TGC TGT GAA GGC TCT
TGC GGG ATG GCC TGT TTC GTT CCC CAG

wherein Z = T, C or A and P = A or G, or sequence complementary thereto.